

Notice of Allowability

Application No.

10/662,813

Examiner

RICARDO L. OSORIO

Applicant(s)

HILL ET AL.

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Interview summary attached herewith, which is a response to non-final action dated 7/16/07.
2. ☒ The allowed claim(s) is/are 1-8, 12-21, and 23-44.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 9/7/2007
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 9/23/2007
7. ☐ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Richard Bauer on 9/21/2007.

The application has been amended as follows:

The claims have been amended as follows:

1. A gesture recognition method comprising the steps of:
displaying an image on a touch surface;
capturing images looking generally across said touch surface;
processing the captured images to detect pointer contacts on said touch surface and examining said pointer contacts to recognize different successive pointer contacts representing a gesture based on the relative positions of said pointer contacts; and when different successive pointer contacts representing a gesture occur, updating the displayed image in accordance with said gesture.

12. A gesture recognition method comprising the steps of:
capturing images of a pointer input region;
processing the images to detect different successive pointers within said input region to determine if said different successive pointers are being used to perform a known gesture based on movement and type of said pointers within said input region and the relative positions of said pointers; and when said different successive pointers are being used to perform a known gesture, executing a command associated with said gesture.

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19. An input detection method in an interactive system capable of detecting movement of multiple pointers generally simultaneously within an input region, said method comprising the steps of:

capturing images looking generally across said input region;
analyzing said images to detect different successive pointers within said input region;

when different successive pointers are detected, examining data associated with said different successive pointers to determine if the data represents an input gesture, said data representing at least movement and type of said pointers within said input region and the relative positions of said pointers; and when the data represents an input gesture, executing a command corresponding to the recognized input gesture.

25. An interactive input system comprising:

at least one imaging device having an input region within its field of view into which pointers are moved to generate user input; and

processing structure communicating with said at least one imaging device and analyzing each image acquired by said at least one imaging device to determine the action of said pointers in said input region, said processing structure determining when different successive pointer actions within said input region represent a gesture, when said different successive pointer actions represent a gesture, said processing structure executing a command corresponding to said gesture.

27. In an interactive touch system, a method of simulating a right-click mouse event comprising the steps of:

capturing images of a touch surface;

processing the images to detect a first pointer contact on the touch surface that represents a left-click mouse event;

processing the images to detect when a subsequent second pointer contact on said touch surface occurs within a threshold distance of said first pointer contact; and

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generating a right-click mouse event in response to said detected second pointer contact, said second pointer contact being different than said first pointer contact.

32. A gesture recognition method comprising:

detecting movement and type of different successive pointers relative to a touch surface to determine if the different successive pointers are being used to perform a known gesture; and

when the different successive pointers are being used to perform a known gesture, executing a command associated with said gesture.

36. A gesture recognition method comprising the steps of:

capturing images of a pointer input region;

processing the images to detect movement and type of different successive pointers within said input region to determine if said different successive pointers are being used to perform a known gesture; and
when said different successive pointers are being used to perform a known gesture, executing a command associated with said gesture.

38. A gesture recognition method comprising the steps of:

displaying an image on a touch surface;

capturing images looking generally across said touch surface;

processing the captured images to detect movement and type of different successive pointers used to contact said touch surface thereby to recognize an input gesture; and

when an input gesture is recognized, updating the displayed image in accordance with said recognized gesture.

Allowable Subject Matter

2. Claims 1-8, 12-21, and 23-44 are allowable.

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3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo L. Osorio whose telephone number is 571-272-7676. The examiner can normally be reached on Monday through Thursday from 7:00 A.M. to 5:30 P.M. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

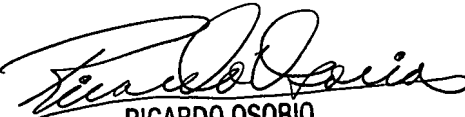
Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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RLO

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